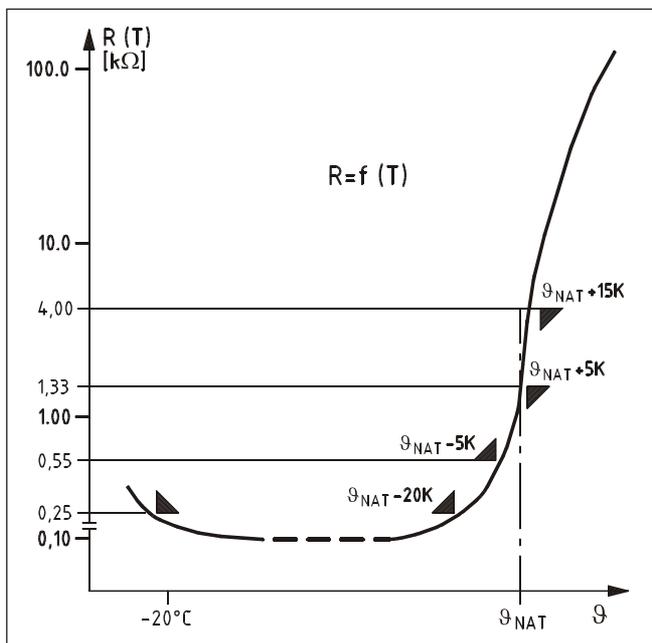
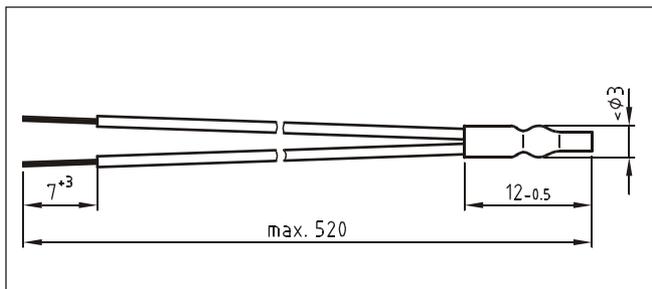


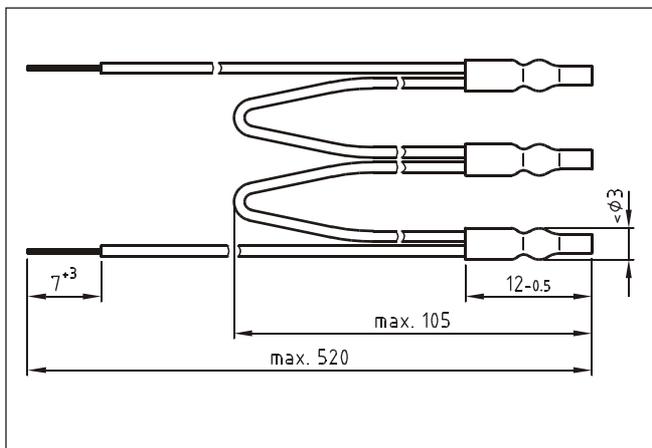
# PTC 热敏电阻



PTC 特性曲线遵循 DIN 44081 / 082 标准



PTC 小型单向传感器



三通 PTC 小型传感器

**应用：**  
PTC 传感器用于监控机器和设备的温度。通过结构的模型可在短时间内达到热的起始反应温度并能简单装配的特性

## PTC 热敏电阻概述

遵循 DIN 44081 标准的 PTC 温度传感器（三通输出遵循 DIN 44082 标准）用于电机热过载保护。KRIWAN 热敏电阻特性可用一条比 DIN 标准更专业的 R/T 特性曲线表示。该曲线适用于 60 ~ 180°C 间不同的类型热敏电

阻。带不同额定断流温度的 PTC 温度传感器也可成批接通。这样就可以最佳化地利用带不同限制温度机器和绕组部件并能节省防护成本。

## 遵循 DIN 44081/082 标准的 PTC 的技术数据

	单向	三通	
最大的工作电压	30	30	V
额定起始反应温度 $\vartheta_{NAT}$	参见订货说明 °C		
公差 $\vartheta_{NAT}$	± 5	± 5	K
可重复性 $\vartheta_{NAT}$	± 0,5	± 0,5	K
冷态电阻 $R_{25}$	= 100	= 300	$\varnothing$
热敏电阻在热敏电阻温度为 $\vartheta_{NAT} - 5K$	= 550	= 1650	$\varnothing$
热敏电阻在热敏电阻温度为 $\vartheta_{NAT} + 5K$	= 1330	= 3990	$\varnothing$
热敏电阻在热敏电阻温度为 $\vartheta_{NAT} + 15K$	= 4	= 12	k?
热响应时间 $t_a$	= 5	= 5	s
绝缘检验电压 $U_{is}$	AC 2.5	AC 2.5	kV
最高的工作温度	200	200	°C
存放温度上限	160	160	°C
存放温度下限	-25	-25	°C
重量	2	3.5	g
许可	UL 文件号：E241244		

## PTC 标记和部件号

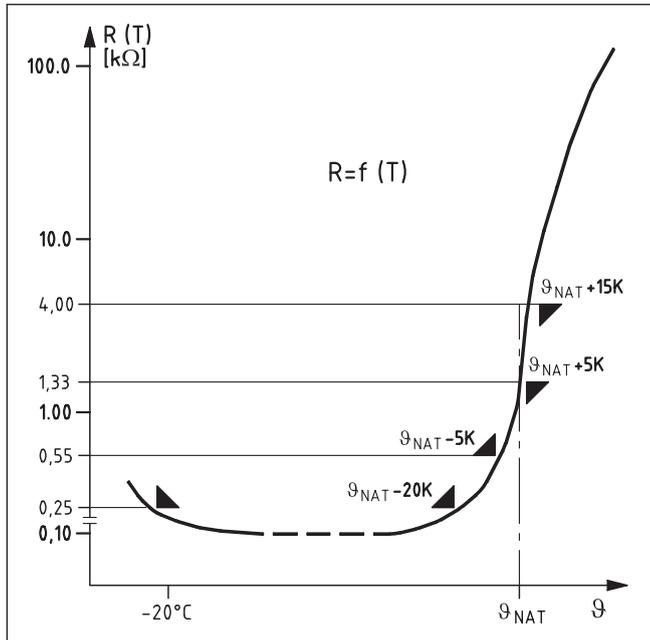
连接用多股软线的颜色标出了额定起始反应温度。下面是按照 DIN 44081 / 82 标准的颜色代码

（目前热敏电阻的供货标准可达到 180°C）

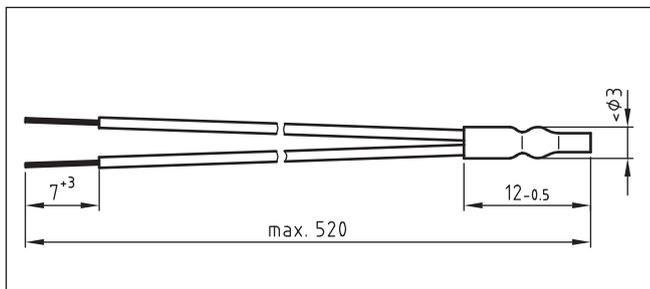
额定起始反应温度 NAT (°C)	色标外部/外部连接多股软线 ge/ge	小型传感器	小型传感器
		单向 DIN 44081 标准 部件号	三通 DIN 44082 标准 部件号
60	ws/gr	01 D 116	01 D 456
70	ws/br	01 D 117	01 D 457
80	ws/ws	01 D 118	01 D 458
90	gn/gn	01 D 119	01 D 459
100	rt/rt	01 D 200	01 D 460
110	br/br	01 D 210	01 D 461
120	gr/gr	01 D 220	01 D 462
130	bl/bl	01 D 230	01 D 463
140	ws/bl	01 D 240	01 D 468
145	ws/sw	01 D 245	01 D 464
150	sw/sw	01 D 250	01 D 469
155	bl/sw	01 D 255	01 D 465
160	bl/rt	01 D 260	01 D 470
170	ws/gn	01 D 270	01 D 466
180	ws/rt	01 D 280	01 D 467

保留技术上更改的权利。

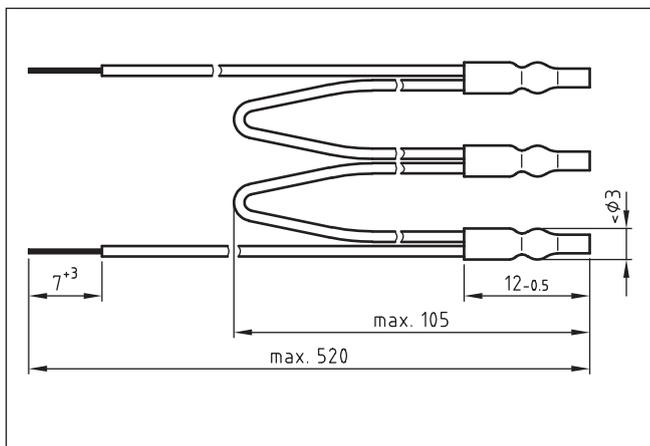
# PTC-Thermistors



PTC characteristic curve acc. to DIN 44081/082



PTC single sensor mini



PTC triple sensor mini

## Application

PTC thermistors are used to monitor temperature in machines and installations. The design ensures short

response times and easy installation.

## General information on PTC thermistors

PTC thermistors acc. to DIN 44081 (triple sensors acc. to DIN 44082) are used to protect electrical machines against thermal overload. KRIWAN thermistors have an even steeper R/T characteristic as that defined in the DIN standard. The temperature range is from 60

to 180°C. PTC thermistor beads with different rated response temperatures can be connected in series. This permits an optimal and economic thermal protection of machines and windings with different limit temperatures.

## Technical Data PTC acc. to DIN 44081/082

	single	triple	
Max. operating voltage	30	30	V
Rated response temperature $\vartheta_{NAT}$	see ordering information		°C
Tolerance of $\vartheta_{NAT}$	± 5	± 5	K
Reproducibility of $\vartheta_{NAT}$	± 0.5	± 0.5	K
Resistance $R_{25}$	≤ 100	≤ 300	Ω
Resistance at a temperature of $\vartheta_{NAT} - 5K$	≤ 550	≤ 1650	Ω
Resistance at a temperature of $\vartheta_{NAT} + 5K$	≥ 1330	≥ 3990	Ω
Resistance at a temperature of $\vartheta_{NAT} + 15K$	≥ 4	≥ 12	kΩ
Thermal response time $t_a$	≤ 5	≤ 5	s
Insulation test voltage $U_{is}$	AC 2.5	AC 2.5	kV
Max. operating temperature	200	200	°C
Max. storage temperature	160	160	°C
Min. storage temperature	-25	-25	°C
Weight	2	3.5	g
Approvals	UL-File Nr. E241244		

## PTC Identification and Part Numbers

The colour of the connection leads identifies the rated response temperature. These are defined in DIN 44081/082

Rated response temperature $\vartheta_{NAT}$ in °C	Lead colours outer / outer (inner: yellow)	Mini single DIN 44081 Part-Number	Mini triplet DIN 44082 Part-Number
60	white/grey	01 D 116	01 D 456
70	white/brown	01 D 117	01 D 457
80	white/white	01 D 118	01 D 458
90	green/green	01 D 119	01 D 459
100	red/red	01 D 200	01 D 460
110	brown/brown	01 D 210	01 D 461
120	grey/grey	01 D 220	01 D 462
130	blue/blue	01 D 230	01 D 463
140	white/blue	01 D 240	01 D 468
145	white/black	01 D 245	01 D 464
150	black/black	01 D 250	01 D 469
155	blue/black	01 D 255	01 D 465
160	blue/red	01 D 260	01 D 470
170	white/green	01 D 270	01 D 466
180	white/red	01 D 280	01 D 467

Subject to technical modification without notice